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AUTHOR Hackman, Judith Dozier
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ABSTRACT

Information concerning a theory about allocation of resources among units at colleges is presented. This information, which is primarily in tabular and graphical form, is based on a report of the special conference topic panel entitled "Clues for Leaders of Universities from Environmental Studies: Applying Theory and Research to Administrative Practice." The theory is based on qualitative interview responses from central administrators at six varied colleges and universities plus quantitative analyses of questionnaire data from unit heads at three of the institutions. Two kinds of power are emphasized: a unit's environmental power and its institutional power. The figures provide definitions of the concepts of centrality, resource allocation, environmental and institutional power, and resource allocation strategies. Propositions concerning a unit's environmental and institutional power are included. Data are provided on the characteristics and participation levels of six participating schools. Environmental power resource categories are identified, along with indices of environmental and institutional power. Finally, correlations among power indices and budget change are indicated. A 30-item bibliography is included. (SW)

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ASHE SPECIAL TOPIC PANEL - 1984 ANNUAL MEETING
CLUES FOR LEADERS OF UNIVERSITIES FROM ENVIRONMENTAL STUDIES:
APPLYING THEORY AND RESEARCH TO ADMINISTRATIVE PRACTICE

Organization and Environment: A Theory of Resource Allocations for Higher Education

by Judith Dozier Hackman
Director, Office of Institutional Research
Yale University, 451 College Street
New Haven, Connecticut 06520

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ASHE Association for the Study of Higher Education
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(202) 296-2597

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The work reported in this panel presentation is based on research that proposes a practical theory about how colleges and universities allocate resources among units. Two kinds of power--a unit's environmental power gained by its relative ability to tap external resources needed by the organization and a unit's institutional power within the organization combine with budgetary strategies to explain about half of the variance in budget allocations. The pivotal concept of centrality (how closely a unit's purposes match those central to the organization) affects how the four other theoretical concepts interact.

The theory is based on qualitative interview responses from central administrators at six varied colleges and universities bolstered by quantitative analyses of questionnaire data from unit heads at three of these institutions. See Hackman (1983) and the attached figures and tables for more details about the research and proposed theory.

Attached Figures and Tables

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FIGURE 1

Five Concepts

Concept I: Centrality--the position on a continuum from core to peripheral that indicates how closely a unit's purposes match the central purposes of the total organization.
Concept II: Resource Allocations--the relative share of in ternal organizational resources allocated to a unit, particularly changes in share of general fund budget but also other kinds of resources such as space and location.
Concept III: Environmental Power--the relative ability of a unit to tap the outside environment for resources that are needed by the total organization.
Concept IV: Institutional Power--the relative influence of a unit within the organization.
Concept V: Resource Allocation Strategies--strategies used by heads of units to affect resource allocations, particularly budgetary strategies.

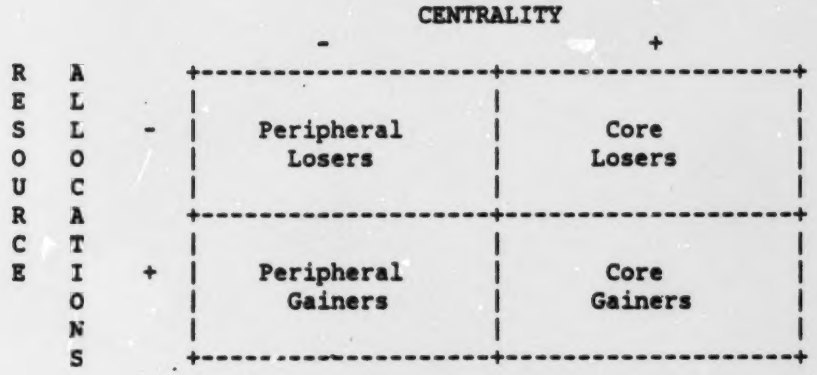
FIGURE 2

Five Propositions

Proposition I: An organizational unit's centrality critically affects the unit's resource allocations. --Because core units are central to the mission of an organization, they gain internal resources when they help themselves. --Because peripheral units are not part of the core, they gain when they contribute to the total institution.
Proposition II: The level of a unit's environmental power interacts with its centrality to affect the unit's resource allocations. --Core units are likely to gain internal organizational resources when they have the environmental power to tap external academic resources, such as students and academic prestige. --Peripheral units are likely to gain internal organizational resources when they have the environmental power to tap external resources needed by the total organization, especially financial resources in times of financial difficulty. --The kinds of environmental power rewarded by increased organizational resources are likely to vary, depending upon the economic social climate.
Proposition III: The level of a unit's institutional power affects the unit's resource allocations. --The kinds of institutional power rewarded by increased organizational resources are likely to vary, depending upon the economic and social climate. --In times of financial stress, the longevity and historical power of a unit are likely to have little or negative correlation with current resource allocations.
Proposition IV: The resource allocation strategies used by the head of a unit interact with unit centrality to affect its resource allocations. --Core units are likely to gain internal organizational resources when their strategies focus on unit-level needs. --Peripheral units are likely to gain internal organizational resources when their strategies focus on institution-level needs.
Proposition V: Because environmental power, institutional power, and resource allocation strategies are somewhat independent, their combined effect upon resource allocations is greater than that of one of the concepts alone.

FIGURE 3

Four Research Groups



*The labels for these four groups were not used during the data collection interviews or questionnaire administration.

FIGURE 4[a]

Six Participating Schools: Characteristics and Participation Levels

Descriptive Pseudonym	Size in 1979-80	Highest Degree	Phase I Interviews #	Phase I Interviews Descriptions	Phase II Interviews Divn Heads #	Phase II Interviews Dept Heads #	Phase II Questionnaires Divn Heads #(%)	Phase II Questionnaires Dept Heads #(%)
State University	14,200	Doctorate	9	Pres, Acad VP, Admin&Bus VP, Dev VP, Stud VP 2 Pres Assts, 2 Acad Assoc VPs	8	3	11(92%)	17(65%)
Liberal Arts College	2,700	Doctorate	3	Pres, Acad VP, Admin&Bus VP	3	3	2(67%)	14(70%)
Comprehensive College	3,800	Master's	3	Pres, Pres Asst Admin&Bus VP			4(57%)	24(89%)
Women's College	550	Bachelor's	4	Pres, Acad VP, Admin&Bus VP Student VP,				
Technical University	7,250	Master's	3	Acad VP, Extl VP, Admin&Bus VP				
Regional University	9,750	Doctorate	4	Admin VP, Bus VP, Dev VP, Ping Dir				
TOTAL PARTICIPATION			26		11	6	17(77%)	55(75%)

[a] The analyses of "unit head" questionnaire data reported in this paper combine responses from heads of departments such as academic chairs and office directors and from deans and division heads. Two additional questionnaires were returned too late for inclusion in data analyses, for a total return of 74 (77.9%).

FIGURE 5

Organization and Environment

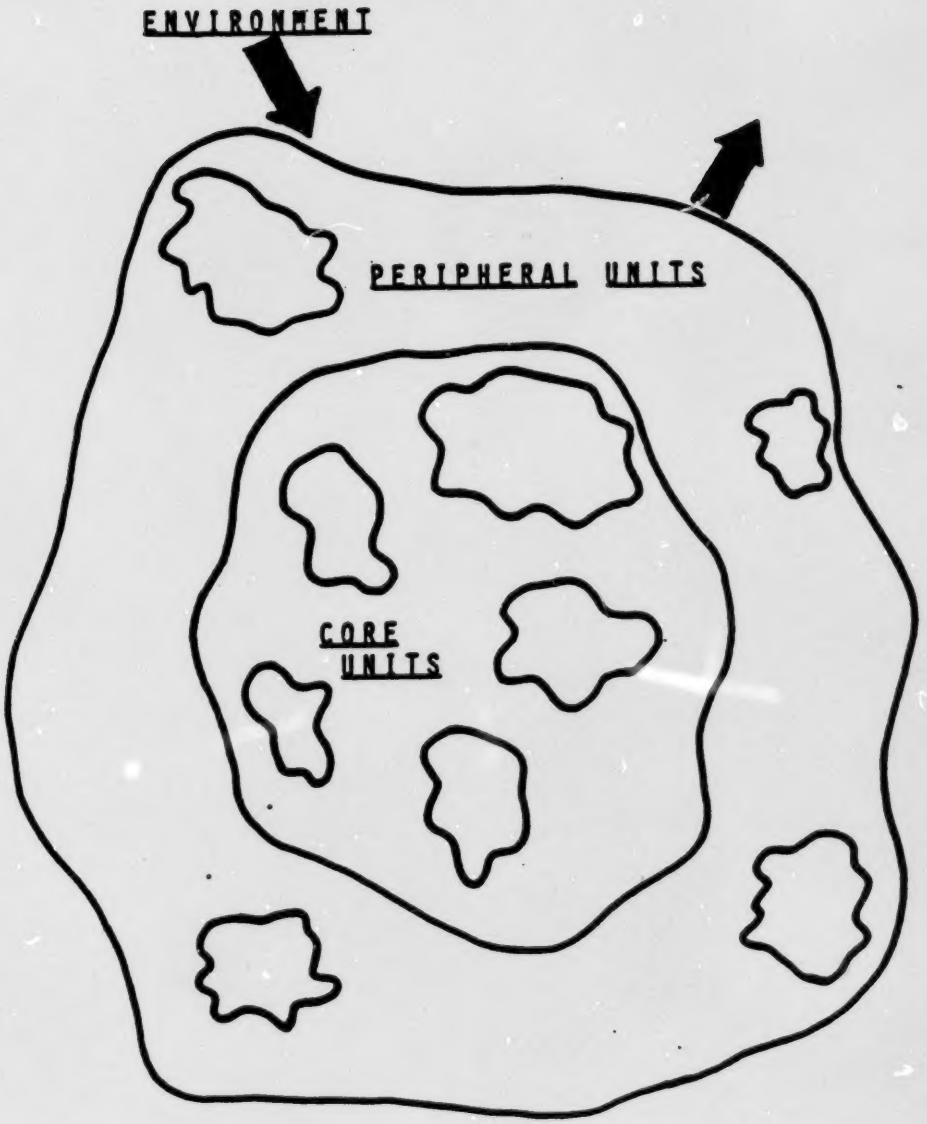


FIGURE 6

Environmental Power Resource Categories

The research examines the degree to which units are able to contribute the following categories of environmental resources, weighted by how important each category is for the total organization:

- --student recruitment & retention
- --faculty recruitment & retention
- --other expertise recruitment & retention
- --prestige
- --ability to cope with societal needs & problems
- --overall outside financial support
- --federal government support
- --foundation support
- --business & industry support
- --alumni support
- --community support
- --state support
- --state legislature support

TABLE 1

Two Indices of Environmental Power*

CORE INDEX: "Tapping External Academic Resources	
Correlation with Budget Change	Item Description
+.56	Prestige
+.36	Coping with current societal needs
+.19	Recruitment and retention of students
-.21	Support from alumni

PERIPHERAL INDEX: "Tapping External Financial Resources	
Correlation with Budget Change	Item Description
+.40	Support from federal government
-.35	Coping with current societal needs
+.21	Support from foundations
-.15	Prestige
+.14	Support from business and industry
-.13	Recruitment and retention of students

* The two index scores are averages of the listed items, each multiplied by the average importance rating of all respondents in an institution. Items with a negative ("-") direction are reversed. The indices were constructed in 5 steps in order to compute summary scores that would distinguish between gainers and losers separately for core and peripheral units: (1) one-way anovas were computed on the weighted current environmental power items between gainers and losers, separately for core and peripheral respondents; (2) items were chosen for each index using a rule that required higher significance for items with more missing data; (3) missing data were replaced with the product of average school importance ratings X 2 (assuming ability = "Somewhat Lower than Most"); (4) items relating negatively to budget change were reversed (1=5,2=4,3=3, 4=2,5=1); (5) the modified scores were then averaged to compute the two indices, separately for core and for peripheral respondents.

TABLE 2

Stepwise Multiple Regressions of
Environmental Power and Institutional Power
on the Budgetary Change of Core and Peripheral Units

CORE RESPONDENTS

Independent Variables	% Explained Variance 33 Unit Heads	Adjusted for Popn	F-Ratio	Sig.
Environmental Power Index Alone	28.6%	26.7%	14.844	.001
Institutional Power Index Added	41.3%	38.0%	12.663	.001

Multiple Correlation = .64

PERIPHERAL RESPONDENTS

Independent Variables	% Explained Variance 33 Unit Heads	Adjusted for Popn	F-Ratio	Sig.
Environmental Power Index Alone	19.8%	17.2%	7.649	.01
Institutional Power Index Added	38.1%	34.0%	9.224	.001

Multiple Correlation = .62

TABLE 3
Two Indices of Institutional Power*

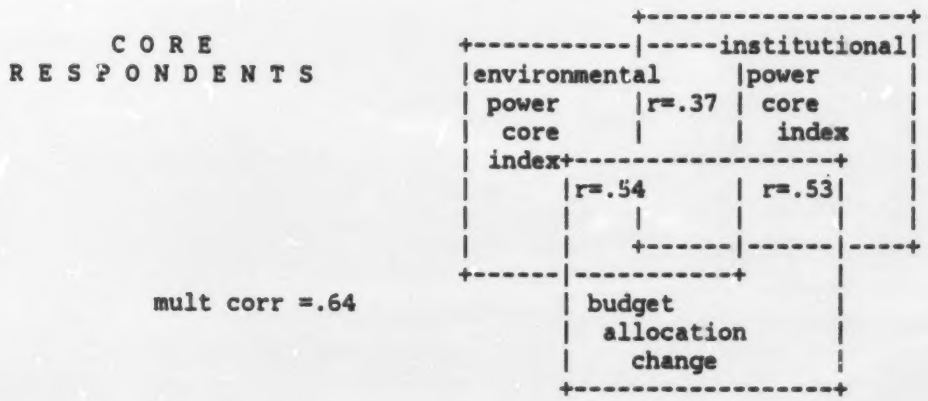
CORE INDEX: Institutional Power	
Correlation with Budget Change	Item Description
+.41	Power of unit presently within the institution
+.38	Number of students served
+.33	Support of president for unit
-.25	Institution's legal commitments to unit
-.22	Number times a month talk with central administrators
+.16	Visibility of unit in the institution
+.16	Visibility of unit outside the institution
-.14	Length of time part of the institution
-.14	Number of full-time-equivalent people in unit

PERIPHERAL INDEX: Institutional Power	
Correlation with Budget Change	Item Description
-.39	Length of time in the institution
+.34	Visibility of unit in the institution
+.32	Power of unit presently within the institution
+.25	Visibility of unit to board of trustees
+.16	Number times a month talk with central administrators

*See Table 1 for a description of how the indices were derived.

FIGURE 6

Correlations among Power Indices and Budget Change



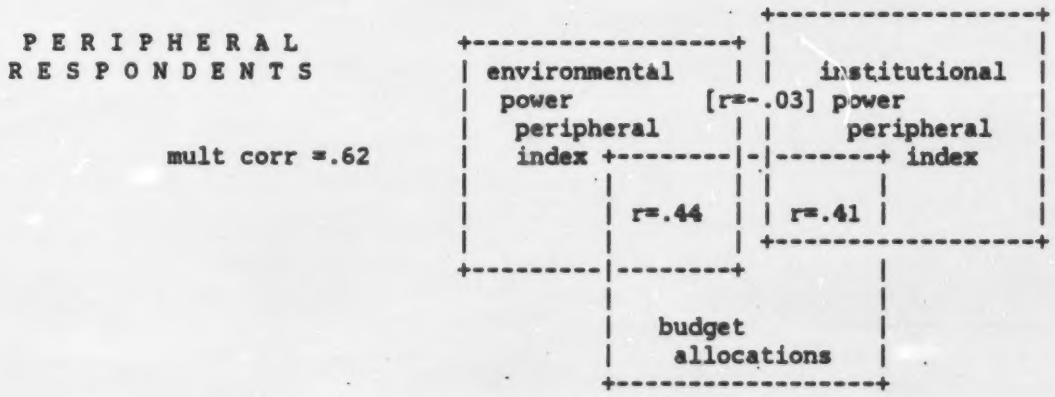
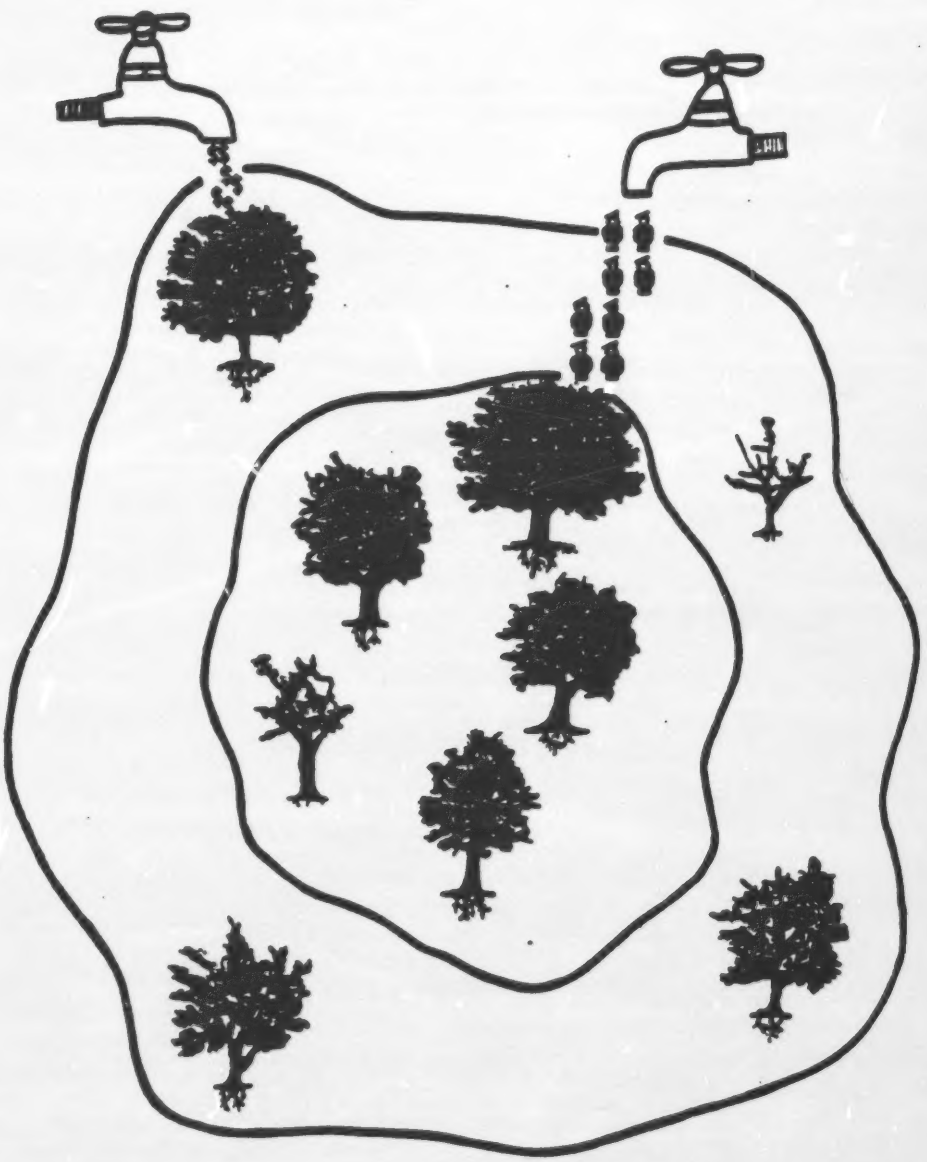


FIGURE 8

Organization and Environment:
A Theory of Resource Allocations for Higher Education



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